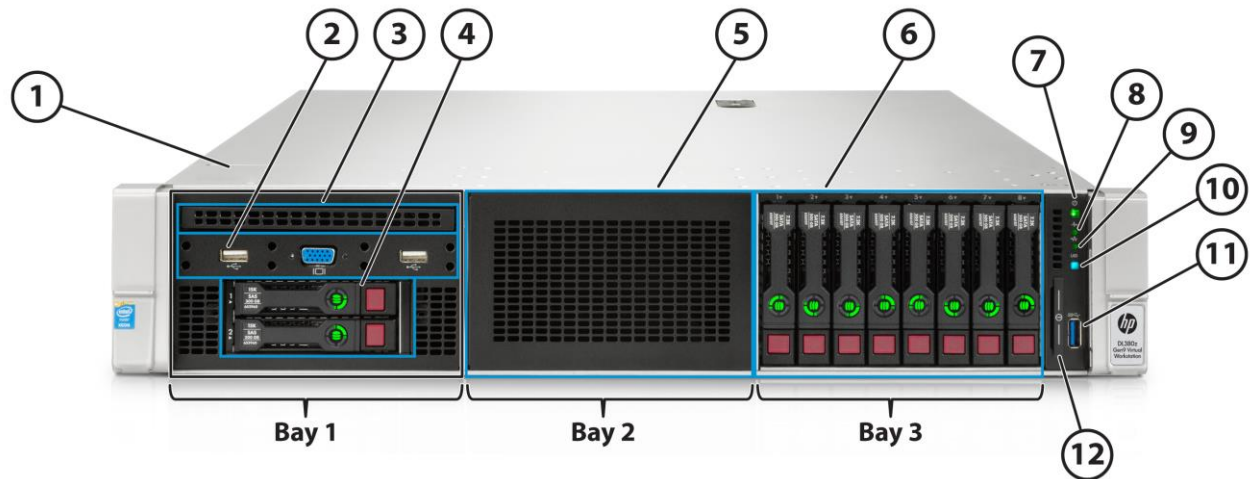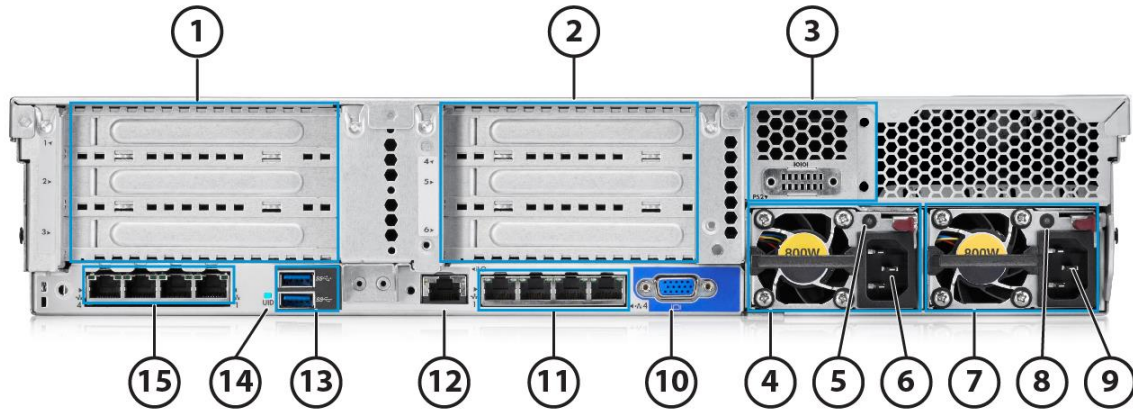## Overview

HP DL380z Generation9 (Gen9)

The HP DL380z Gen9 Virtual Workstation delivers the best performance and expandability in the HP 2P rack portfolio. Reliability, serviceability and near continuous availability, backed by a comprehensive warranty, make it ideal for any environment. Deploy the data center standard.

Front View - 8SFF Chassis with Optional Universal Media Bay shown

1. Quick removal access panel
2. Universal Media bay. 2 USB 2.0 and VGA standard (8SFF bay optional)
3. Optional Optical drive. Requires Universal Media bay.
4. Optional 2 SFF HDD, blank shown. Requires Universal Media bay.
5. Drive Bay 2. Blank shown, 8SFF optional.
6. 8 SFF Drive Cage Bay
7. Power On/Standby button and system power LED button
8. Health LED
9. NIC status
10. UID button
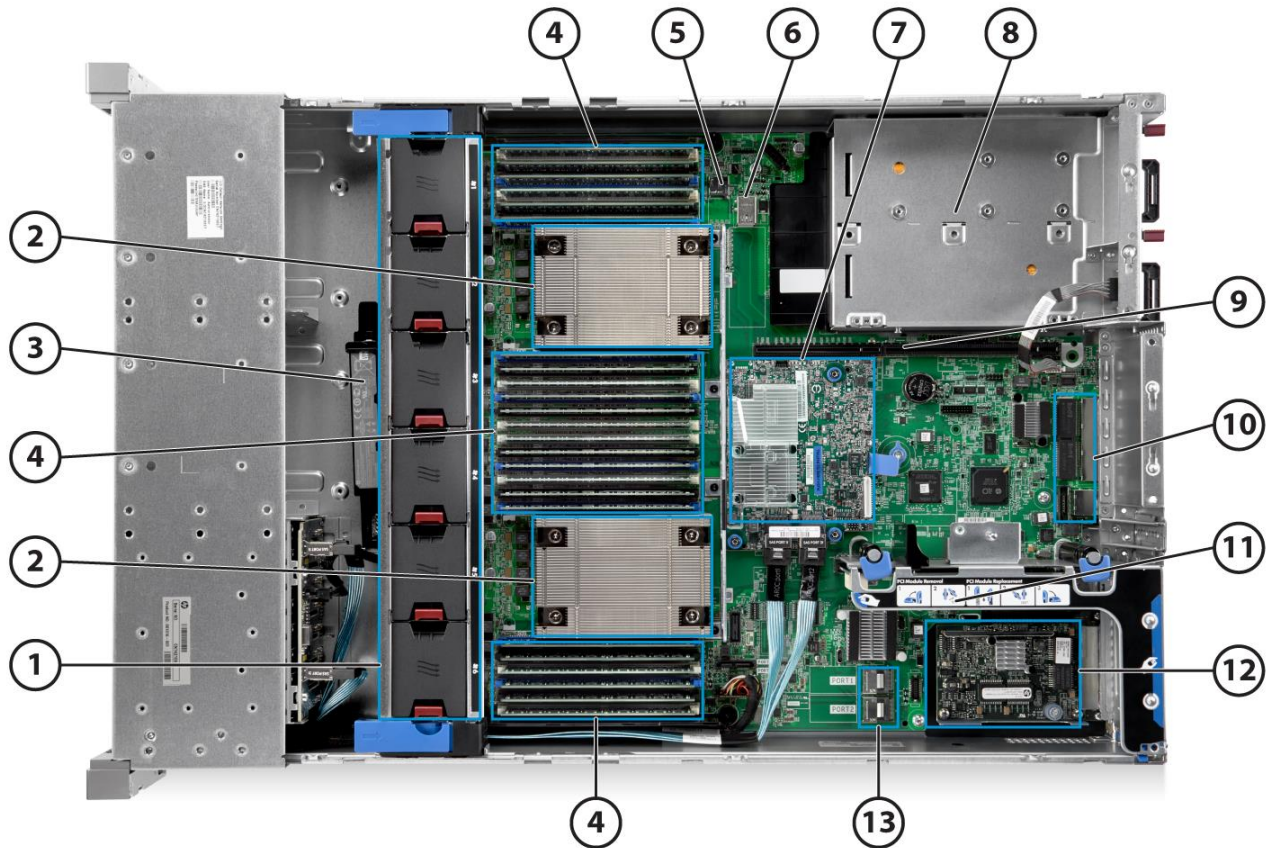11. USB 3.0
12. Serial label pull tag

Overview

Rear view

1. PCI Slots (Slots 1-3 top to bottom, 3-Slot riser (3 PCIe x8 elec) shipped standard, optional 2-slot riser (1 x16 +1x8) is optional)
2. PCI Slots (Slots 4-6top to bottom, requires second 3-slot riser card, and second processor)
3. Optional serial port
4. HP Flexible Slot Power Supply bay 1 (800w shown)
5. Power supply Power LED
6. Power supply Power connection
7. HP Flexible Slot Power Supply bay 2 (800w shown)
8. Power supply Power LED
9. Power supply Power connection
10. VGA connector
11. Embedded 4 x 1GbE Network Adapter
12. Dedicated iLO connector
13. USB 3.0 connectors (2)
14. Unit ID LED
15. Optional FlexibleLOM ports (Shown: 4 x 1GbE)

Overview

Internal view

1.   Fan cage shown with 6 standard Hot-plug fans (High Performance fans optional)
2.   2 Processors, heatsink showing, with HP Smart Socket Guide
3.   Optional HP Smart Storage Battery
4.   DDR4 DIMM slots. Shown fully populated in 24 slots (12 per processor)
5.   MicroSD card slot
6.   Internal USB 3.0 connector
7.   Optional HP Flexible Smart Array or Smart HBA (H240ar shown)
8.   (Under) Hot Plug redundant HP Flexible Slot Power supplies
9.   Connection for second (optional) riser (Required second CPU)
10.   Embedded 4x1Gbe NIC
11.   Primary PCIe riser, standard (Optional double-wide GPU riser)
12.   Optional Flexible LOM slot
13.   X4 SATA ports (1 and 2)

QuickSpecs

Standard Features

NOTE: For more information regarding Intel Xeon processors, please see the following URL:
http://www.intel.com/xeon

Intel® Xeon® processor E5-2600 v3 product family is designed to deliver the best combination of performance, built-in capabilities, and cost-effectiveness. One (or two) of the following Intel® Xeon® E5-2600 v3 processors based on the model

Processor
Up to two of the following depending on Model

Model	CPU frequency	Cores	L3 Cache	Power	QPI	DDR4 Hz
E5-2699v3	2.3GHz	18	45MB	145W	9.6GT/s	2133
E5-2698v3	2.3GHz	16	40MB	135W	9.6GT/s	2133
E5-2697v3	2.6GHz	14	35MB	145W	9.6GT/s	2133
E5-2695v3	2.3GHz	14	35MB	120W	9.6GT/s	2133
E5-2690v3	2.6GHz	12	30MB	135W	9.6GT/s	2133
E5-2687Wv3	3.1GHz	10	25MB	160W	9.6GT/s	2133
E5-2683v3	2.0GHz	14	35MB	120W	9.6GT/s	2133
E5-2680v3	2.5GHz	12	30MB	120W	9.6GT/s	2133
E5-2670v3	2.3GHz	12	30MB	120W	9.6GT/s	2133
E5-2667v3	3.2GHz	8	25MB	135W	9.6GT/s	2133
E5-2660v3	2.6GHz	10	25MB	105W	9.6GT/s	2133
E5-2650v3	2.3GHz	10	25MB	105W	9.6GT/s	2133
E5-2650Lv3	1.8GHz	12	25MB	65W	9.6GT/s	2133
E5-2643v3	3.4GHz	6	20MB	135W	9.6GT/s	2133
E5-2640v3	2.6GHz	8	20MB	90W	8.0GT/s	1866
E5-2637v3	3.5GHz	4	15MB	135W	9.6GT/s	2133
E5-2630v3	2.4Ghz	8	20MB	85W	8.0GT/s	1866
E5-2630Lv3	1.8GHz	8	25MB	55W	8.0GT/s	1866
E5-2623v3	3.0GHz	4	10MB	105W	8.0GT/s	1866
E5-2620v3	2.4GHz	6	15MB	85W	8.0GT/s	1866
E5-2609v3	1.9GHz	6	15MB	85W	8.0GT/s	1600
E5-2603v3	1.6GHz	6	15MB	85W	6.4GT/s	1600

Note that all processors above 120W use a high efficiency Heatsink. Doublewide PCIe cards are only supported with this Heatsink. For processors with a standard Heatsink that require double wide cards we would need to leverage the Graphics Enablement kit (787850-B21)

Chipset

Intel® C610 Series Chipset

Intel® E5-2600v3 Processor Family

NOTE: For more information regarding Intel chipsets, please see the following URL:
http://www.intel.com/products/server/chipsets/.

On System Management Chipset

HP iLO (Firmware HP iLO4 2.0) 4GB NAND

NOTE: 1GB USB user space configurable via UEFI and accessible via iLO. Read and learn more in the iLO QuickSpecs.

Standard Features

Memory One of the following depending on Model	Type: HP SmartMemory DDR4 Registered (RDIMM) or Load Reduced (LRDIMM)

DIMM Slots Available	24	(12 DIMM slots per processor, 4 channels per processor, 3 DIMMs per channel)
Maximum Capacity (LRDIMM)	768GB	(24 x 32GB LRDIMM @2133MHz)
Maximum Capacity (RDIMM)	384GB	(24 x 16GB RDIMM @2133MHz)

Memory Protection	Online spare	Memory online spare mode detects a rank that is degrading and switches operation to the spare rank.
	Advanced ECC	Advanced ECC uses single device data correction to detect and correct single and all multibit error that occurs within a single DRAM chip.

Expansion Slots

Primary 3-Slot Riser (Standard)

Expansion Slot #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
1	PCIe 3.0	x8	x16	7	Full-height, full-length Slot	Proc 1
2	PCIe 3.0	x8	x16	10	Full-height, full-length Slot	Proc 1
3	PCIe 3.0	x8	x8	13	Full-height, half-length Slot	Chipset

- Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
  ** Indicates the number of physical electrical lanes running to the connector.
- **NOTE:** All slots support up to 150w PCIe cards, but an additional Power Cord Option is required (PN 669777-B21). See Option Section below for offering.

Primary 2-Slot GPU Riser
787894-B21 FIO
719076-B21 AMO

Expansion Slot #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
2	PCIe 3.0	x16	x16	16	Full Height, full Length Slot	Proc 1
3	PCIe 3.0	x8	x8	16	Full-height, half-length Slot	Proc 1

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
** Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.
NOTE: All slots support up to 150w PCIe cards, but an additional Power Cord Option is required (669777-B21). See Option Section below for offering.

Secondary 3-Slot GPU Riser
787893-B21 FIO
719073-B21 AMO

Expansion Slot #	Technology	Bus Width	Connector Width	Bus Number	Form Factor	Notes
4	PCIe 3.0	x16	x16	16	Full Height, full Length Slot	Proc 2
5	PCIe 3.0	x16	x16	20	Full Height, full Length Slot	Proc 2
6	PCIe 3.0	x8	x8	23	Full-height, half-length Slot	Proc 2

* Default bus assignment (in decimal). Inserting cards with PCI bridges may alter the actual bus assignment number
** Indicates the number of physical electrical lanes running to the connector.
NOTE: When populating the second optional riser slot, the second processor must be installed.
NOTE: All slots support up to 150w PCIe cards, but an additional Power Cord Option is required (669777-B21). See Option Section below for offering.

Standard Features

Storage Controller **One of the following** **depending on Model**	Entry Models	HP Dynamic Smart Array B140i Controller

NOTE: The embedded B140i controller will operate in UEFI only mode. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22.

	Base Models	HP Dynamic Smart Array B140i Controller HP Flexible Smart Array P440ar/2G FIO Controller HP Flexible Smart Array P840ar/4GB
	Performance Models	HP Dynamic Smart Array B140i Controller HP Flexible Smart Array P440ar/2GB

Internal Storage **Devices** One of the following depending on Model	Optical Drive	None ship standard Optional: DVD-ROM, DVD-RW **NOTE:** The Universal Media Bay (787844-B2) is required to install any optical drives.
	Hard Drives	None ship standard
	Hard Drive Bays	**8 SFF Support:** DL380z uses the 8 SFF chassis and supports 8 SFF Drives as standard.

NOTE: All Pre-configured Chassis come with an embedded B140i 10-Port SATA controller. Optional HP Flexible Smart Array and Smart SAS HBA Controllers can be added.

10 SFF Support:
An additional 2 SFF drives are supported in the front with:
Optional Universal Media Bay (787844-B2) and
Optional 2 SFF Cage kit (787843-B21).

NOTE: The Universal Media Bay (787844-B21) can only be populated in Bay1.
NOTE: Only the 24SFF and 12LFF Chassis support rear drives. The DL380z is an 8FF chassis and therefore does not support rear drives.

16 SFF Support:
Add Bay2 8 SFF Cage/Backplane kit (768857-B21).

NOTE: The 8SFF can be upgraded with a drive cage to 16 or 24 SFF with field upgrades.

18 SFF Support:
Add both the Bay2 8 SFF Cage/Backplane kit (768857-B21) and
Optional Universal Media Bay (787844-B2) and
Optional 2 SFF Cage kit (787843-B21).

NOTE: The Universal Media Bay (787844-B21) can only be populated in Bay1.
NOTE: The 8SFF can be upgraded with a drive cage to 16 or 24 SFF with field upgrades.

		CAPACITY	CONFIGURATION
Maximum Internal **Storage**	Hot Plug SFF SAS	21.6TB	18 x 1.2TB
	Hot Plug SFF SATA	18.0 TB	18 x 1TB
	Hot Plug SFF SAS SSD	28.8TB	18 x 1.6TB

Power Supply	HP 800W Flex Slot Platinum Hot Plug Power Supply HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply

HP Flexible Slot (Flex Slot) Power Supplies share a common electrical and physical design that allows for hot plug, tool-

QuickSpecs

Standard Features

less installation into HP ProLiant Gen9 Performance Servers/Workstations. Flex Slot power supplies are certified for high-efficiency operation and offer multiple power output options, allowing users to "right-size" a power supply for specific server configurations. This flexibility helps to reduce power waste, lower overall energy costs, and avoid "trapped" power capacity in the data center.

All pre-configured servers ship with a standard 6-foot IEC C-13/C-14 jumper cord (A0K02A). This jumper cord is also included with each standard AC power supply option kit. If a different power cord is required, please check the ProLiant Power Cables web page.

To review the power requirements for your selected system, please use the HP Power Advisor Tool located at www.hp.com/go/hppoweradvisor.

Power specifications and technical content for all HP Server power supplies can be found at www.hp.com/go/proliant/powersupply.

System Fans	DL380z ships with 4 standard redundant, hot-plug fans as standard. The HP DL380z Gen9 High Performance Fan Kit (794560-B21 FIO, 719079-B21 AMO) includes 6 high performance redundant, hot-plug fans and is required if 1 or 2 K2 graphics are installed. HP DL380z Gen9 High Performance Fan Kit (719079-B21 AMO) can also be ordered as an after-market option.

Interfaces		
	Serial	optional
	Video	2; 1 front (optional via Universal Media Bay, 787844-B21), 1 back, not active simultaneously
	FlexibleLOM Network Ports	4 x 1Gb ports shipping standard with optional FlexibleLOM
	HP iLO Remote Management Network Port	1 Gb Dedicated
	Micro SD Slot	1 Micro SD

NOTE: The Micro SD slot is not a hot-pluggable device. Customers should not attempt to plug an SD card into the SD slot while the workstation is powered.

	USB 3.0	Up to 5 total: 1 front, 2 rear, 2 internal (secure), 2 optional USB 2.0 front via Universal Media Bay
	SID (Systems Insight Display)	Optional

Not shipping as standard. Available as a CTO option or as a field upgrade (768900-B21)

Standard Features

Operating Systems and Virtualization Software Support for DL380z	**Microsoft Windows**	
	Microsoft Windows 7 Professional 64-Bit DL380z FIO Software Kit	789686-B21
	Red Hat Enterprise Linux (RHEL)	
	HP DL380z Linux Installer Software Kit	789687-B21
	VMware vSphere	
	Citrix XenServer	

NOTE: For more information on HP's Certified and Supported OS and Virtualization Software and latest listing of software drivers available for your workstation, please visit our Support Matrix at: http://www.hp.com/go/ossupport and our driver download page: http://www.hp.com/support/DL380Gen9

Upgradeability

Upgradeable to two processors (36 Cores)

NOTE: Processor upgrade available from Intel® Xeon® Processors E5-2600v3. Please contact HP Technology Sales (http://www.hp.com/support), your local HP Re-seller.

Up to 24 DIMM slots available for higher Memory capacity
FlexibleLOM connector for 1 Gigabit or 10 Gigabit networking options
HP Flexible Smart Array or Smart HBA Controllers
Embedded 10-Port SATA, B140i as standard
Optional 3 slot riser (x16, x16, x8), or 2 slot (x16, x8)

NOTE: To take advantage of the additional 3 PCI slot upgrade, the second processor must be installed.

Redundant Power Supply
Optical Drive supported via Universal Media Bay

NOTE: The Universal Media bay provides front VGA and 2xUSB, plus ability to add 2SFF and Optical.
NOTE: Universal Media bay only available with 8 or 8+8SFF chassis & can be populated in Bay1 only.

HP Legacy Mode (FIO only, 758959-B22)

NOTE: UEFI is the default model for CTO and BTO SKUs. Can change default to legacy via CTO.

Industry Standard Compliance

ACPI 2.0b Compliant
PCIe 3.0 Compliant
PXE Support
WOL Support
Microsoft® Logo certifications
USB 3.0 Support
USB 2.0 Support
NOTE: This support is on the optional Universal Media Bay
Energy Star
ASHRAE A3/A4
For details on configurations supporting ASHRAE A3/4 please see: www.hp.com/servers/ASHRAE
UEFI (Unified Extensible Firmware Interface Forum)
Note UEFI is the default for the DL380z Gen9. Legacy model can be selected in the field, or as a CTO option (758959-B22)

QuickSpecs

Standard Features

Graphics	Integrated Matrox G200eH2 video standard with 16MB of Video RAM

- 1280 x 1024 (32 bpp)

1920 x 1200 (16 bpp)
HP iLO 4 On System Management Memory

- 16 MB Flash

256 MB DDR 3 with ECC (112 MB after ECC and video)

HP Server UEFI/Legacy ROM

HP Server UEFI /Legacy ROM

Unified Extensible Firmware Interface (UEFI) is an industry standard that provides better manageability and more secured configuration while interacting with your server at boot time. HP Gen9 platform defaults to UEFI and can be factory or field configured for Legacy BIOS Boot Mode.
NOTE: The UEFI System Utilities function is analogous to the HP ROM-Based Setup Utility (RBSU) of legacy BIOS. For more information, please visit http://www.hp.com/go/proliantuefi/docs.
UEFI enables numerous new capabilities specific to HP ProLiant servers and the DL380z such as:

- Secure Boot

- Operating system specific functionality

- Support for > 2.2 TB (using GPT) boot drives

- USB 3.0 Stack

- Embedded UEFI Shell

- Mass Configuration Deployment Tool - HP RESTful API.

- PXE boot support for IPv6 networks

- Boot support for option cards that only support a UEFI option ROM

For more information please visit http://www.hp.com/go/proliant/uefi

NOTE: For UEFI Boot Mode, boot environment and OS image installations should be configured properly to support UEFI.
NOTE: Legacy model can be enabled with a CTO build (758959-B22). All standard SKUs ship with UEFI as default.

Form Factor
One of the following
depending on Model

2U Rack form factor
8 SFF Drive Bay Version:
3.44 x 17.54 x 26.75 in (8.73 x 44.55 x 67.94 cm)

NOTE: Dimensions without bezel

Embedded Management

	HP Integrated Lights-Out (HP iLO)	Monitor your servers/workstations for ongoing management, service alerting, reporting and remote management with iLO. Learn more at www.hp.com/go/ilo.
	UEFI	Configure and boot your servers/workstations securely with industry standard Unified Extensible Firmware Interface (UEFI). Learn more at www.hp.com/go/ProLiant/uefi.
	HP RESTful API	RESTful API is an application programming interface. RESTful Web Service API served by iLO's web server www.hp.com/go/restfulapi.

QuickSpecs

Standard Features

	Intelligent Provisioning	Provision servers/workstations by discovering and deploying 1 to few servers/workstations with Intelligent Provisioning. Learn more at www.hp.com/go/intelligentprovisioning.
	Embedded Remote Support	HP's embedded remote support, used with Insight Online direct connect or HP Insight Remote Support, allows HP ProLiant servers and DL380z Workstation to transmit hardware events directly to HP or an HP Authorized Partner for automated phone home support. Learn more at www.hp.com/go/insightonline/info.
Utilities	**HP Smart Update**	Optimize firmware and driver updates with HP Smart Update solutions. Learn more at www.hp.com/go/smartupdate.
	HP Systems Insight Manager (HP SIM)	HP SIM allows you to monitor the health of your HP ProLiant Servers/DL380z and HP Integrity Servers, and also provides you with basic support for non-HP servers. HP SIM also integrates with HP SUM to provide quick and seamless firmware updates. Learn more at www.hp.com/go/sim.
	Scripting Tool Kit and Windows PowerShell	Provision 1 to many servers using your own scripts to discover and deploy them with HP Scripting Tool Kit for Windows and Linux or HP Scripting Tools for Windows PowerShell. Learn more at www.hp.com/go/ProLiantSTK or www.hp.com/go/powershell.
	HP RESTful Interface Tool	HP RESTful Interface tool is a scripting tool to provision servers using RESTful API Interface to discover and deploy servers at scale. Learn more at www.hp.com/go/restfulapi.
	HP iLO Mobile Application	Enables the ability to access, deploy, and manage your server anytime from anywhere from select smartphones and mobile devices. For additional information please visit: www.hp.com/go/ilo/mobileapp.
	HP Insight Online	HP Insight Online, available at no additional cost as part of your HP warranty, Care Pack or contractual support agreement with HP, is a personalized dashboard for simplified tracking of IT operations and support information from anywhere, anytime. Learn more at www.hp.com/go/insightonline/info.

Security

Power-on password
Serial interface control
Administrator's password
UEFI
iLO 4 (Integrated Lights-Out 4) has 12 customizable user accounts and SSL encryption
Integrated Lights-Out can be disabled via a Global Setting
iLO Advanced supports directory services integration

Warranty

This product is covered by a global limited warranty and supported by HP Services and a worldwide network of HP Authorized Channel Partners resellers. Hardware diagnostic support and repair is available for three years from date of purchase. Support for software and initial setup is available for 90 days from date of purchase. Enhancements to warranty services are available through HP Care Pack services or customized service agreements. Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.

NOTE: Warranty includes 3-Year Parts, 3-Year Labor, 3-Year Onsite support with next business day response. Warranty repairs may be accomplished through the use of Customer Self Repair (CSR) parts. These parts fall into two categories: 1) Mandatory CSR parts are designed for easy replacement. A travel and labor charge will result when customers decline to replace a Mandatory CSR part; 2) Optional CSR parts are also designed for easy replacement but may involve added complexity. Customers may choose to have HP replace Optional CSR parts at no charge. Additional information regarding worldwide limited warranty and technical support is available at: http://h18004.www1.hp.com/products/servers/platforms/warranty/index.html

Standard Features

Embedded Management	**iLO Advanced**	

HP iLO Advanced licenses offer smart remote functionality without compromise, for all HP ProLiant servers and DL380z workstations. The license includes the full integrated remote console, virtual keyboard, video, and mouse (KVM), multi-user collaboration, console record and replay, and GUI-based and scripted virtual media and virtual folders. You can also activate the enhanced security and power management functionality. Learn more about HP iLO Advanced at www.hp.com/go/iloadvanced.

System Management	**HP Insight Control**	HP Insight Control, lets you deploy, migrate, monitor, remote control, and optimize your IT infrastructure through a single, simple management console. For more information, see http://www.hp.com/go/insightcontrol.
	HP OneView	Powerful converged management of servers, storage, and network for IT service automation and infrastructure simplicity, see www.hp.com/go/oneview.
	HP Insight Cluster Management Utility (CMU)	HP Insight Cluster Management Utility is a hyperscale-optimized management framework that includes software for the provisioning, control, performance management and monitoring of groups of nodes and infrastructure. Learn more at www.hp.com/go/cmu.

Rack and Power Infrastructure

HP Rack and Power Infrastructure products and services create highly efficient and intelligent solutions for existing or new IT data centers. HP Rack and Power infrastructure solutions – rack infrastructure, power protection and management, performance optimized data centers (PODs) – are the foundation you are looking for to help secure your long-term IT success. These products are designed to help you react to changes in the industry. They deliver efficient, easy-to-use capabilities to manage, monitor, deploy and provision infrastructure from entry to enterprise. As an industry leader, HP is uniquely positioned to address the key concerns of power, cooling, cable management and system access. Learn more at HP Rack and Power Infrastructure.

Storage Software

Whether you need to solve a specific data protection, archiving, or storage command and control challenge, or deliver on strategic consolidation, compliance, or continuity initiatives, look no further than HP storage software. Our storage software helps you reduce costs, simplify storage infrastructure, protect vital assets and respond faster to business opportunities.
Storage software that gets the job done:

- **Data Protection and Recovery Software**
  Whether you're a large enterprise or a smaller business, HP data protection and recovery software will cost-effectively protect you against disaster and ensure business continuity.
- **Data Archive and Migration Software**
  HP's storage software enables you to comply with data retention and retrieval requirements, improve application performance, and reduce costs by efficiently migrating infrequently accessed or less valuable data to lower cost storage.
- **Storage Resource Management Software (SRM)**
  HP's storage resource management software reduces operational costs and provides the command and control foundation you need to efficiently manage and visualize your physical and virtual environments.
- **Data Replication Software**
  HP offers array-based and host-based replication software for use in disaster recovery, testing, application development and reporting.
- **Storage Device Management Software**
  Maximize your investment in HP storage and networking with software that enables hardware-specific configuration, performance tuning and connectivity management.
- **HP StoreVirtual VSA**
  With HP StoreVirtual VSA you can use the power of virtualization to turn a set of heterogeneous and disconnected physical disk drives in your systems and storage devices into a single pool of logical storage

Standard Features

capacity.

NOTE: For more information available Storage Software including QuickSpecs, please see: www.hp.com/go/storage/software.

One Config Simple (SCE)	SCE is a guided self-service tool to help sales and non-technical people provide customers with initial configurations in 3 to 5 minutes. You may then send the configuration on for configuration help, or use in your existing ordering processes. If you require "custom" rack configuration or configuration for products not available in SCE, please contact HP's Customer Business Center or an Authorized Partner for assistance. http://www.hp.com/products/configurator.
HP Technology Services	HP Technology Services delivers confidence, reduces risk and helps customers realize agility and stability. Connect to HP to help prevent problems and solve issues faster. Our support technology lets you to tap into the knowledge of millions of devices and thousands of experts to stay informed and in control, anywhere, any time.
Protect your business beyond warranty with HP Care Pack Services	HP Care Pack Services enable you to order the right service level, length of coverage and response time as you purchase your new workstation, giving you full entitlement for the term you select.
Optimized Support recommendation	**HP Proactive Care -** Call to Repair commitment, 24x7 coverage, three year Care Pack Service Prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HP. Includes enhanced escalation management and the industry's highest level of hardware support commitment – hardware will be returned to operating conditions within six (6) hours after you open your case. Comes with collaborative software call management with two hour call back to reduce troubleshooting. As a leading global support provider for Microsoft, Red Hat, VMware, SUSE and other operating systems, HP is able to simplify and shorten your time to resolution with one call for hardware or software questions. http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf **HP System Hardware Installation** Help ensure your new HP hardware is installed smoothly, efficiently and with minimal disruption to your IT and business operations. http://h20195.www2.hp.com/V2/GetPDF.aspx/5981-9356EN.pdf
Standard Support recommendation	**HP Proactive Care** - 24x7 coverage, three year Care Pack Service This service helps prevent problems and stabilize IT by utilizing secure, real-time, predictive analytics and proactive consultations when your products are connected to HP. Includes four hour response for hardware, and collaborative call management for software with a two hour callback. http://h20195.www2.hp.com/v2/GetPDF.aspx/4AA3-8855ENW.pdf
Related Services	**Data Center Platform Consulting Services** These services help modernize key systems and leverage new technology to support a changing business climate and prepare you for the new style of IT. HP understands the needs of the data center of the future and will serve as your guide for the journey. www.hp.com/services/consulting **Data Privacy Services** Protect your data through better media management. HP Data privacy services help manage and protect sensitive data. www.hp.com/services/dataprivacy **Factory Express for Systems and storage** HP Factory Express offers configuration, customization, integration and deployment services for HP systems and storage products. Choose how your factory solutions are built, tested, integrated, shipped and deployed. http://www.hp.com/go/factory-express **HP Foundation Care** Hardware and software support services provide easy connection to HP to resolve support issues quickly. Includes collaborative call management for industry leading software; full software support may also be purchased, giving

Standard Features

you one place to call for help. www.hp.com/services/foundationcare

Additional HP Care Pack services can be found at: www.hp.com/go/cpc

Standard Features

Parts and Materials   HP will provide HP-supported replacement parts and materials necessary to maintain the covered hardware product in operating condition, including parts and materials for available and recommended engineering improvements.

Parts and components that have reached their maximum supported lifetime and/or the maximum usage limitations as set forth in the manufacturer's operating manual, product quick-specs, or the technical product data sheet will not be provided, repaired, or replaced as part of these services.

The defective media retention service feature option applies only to Disk or eligible SSD/Flash Drives replaced by HP due to malfunction.

Core Options

This section lists some of the steps required to configure a Factory Integrated Model. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for information on configurable product offerings and requirements.

1. Factory Integrated Models must start with a CTO Server.
2. FIO indicates that this option is only available as a factory installable option.
3. All Factory Integrated Models will be populated with sufficient hard drive blanks based on the number of initial hard drives ordered with the system.
4. Some options may not be integrated at the factory. Contact your local sales representative for additional information.

Step 1: Base Configuration (choose one of the following configurable models)

[Chassis]	HP ProLiant DL380z Gen9 8SFF Configure-to-order Workstation
SKU Number	787868-B21
Processor	2 (optional) x HP Smart Socket Guides
DIMMSlots	24 DIMM slots for RDIMM, LRDIMM DDR4 Memory
Storage Controller	HP Dynamic Smart Array B140i, plus optional HP Flexible Smart Array or Smart HBA controller
PCIe	3 PCIe slots (+3 PCI slots available with upgrade option, second processor required)
Drive Cage	8SFF Hot Plug
Network Controller	HP Embedded 1Gb Ethernet 4-port 331i Adapter, plus optional HP Flexible LOM
Fans	4 hot plug fans, redundant Optional: 6 hot plug high performance temperature fans, redundant
Management	iLO Management (standard), Intelligent Provisioning (standard), iLO Advanced (optional), Insight Control (optional), HP OneView (optional)
USB	1 front, 1 internal, 2 rear, (2 front optional)
Ears	HP Quick Release Ears

Step 2: Choose Required Options (only one of the following from each list unless otherwise noted)

HP Processors   Select one or two processors from Core options-Processor section below,

- If one processor is desired, select one xxxxxx-L21
- If two processors are desired, select one xxxxxx-L21 and one xxxxxx-B21.
- Up to 2 processors supported. Mixing different processor models is not supported.
- DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
- For the Intel® C600 Chipset E5-2600 Series, the letter preceding the model number indicates the

    Product Line (E3, E5, E7); 2600x v#, 2 = number of CPUs in a Node, 4 is socket/segment designation, 00 = Processor SKU, x = L for low power SKUs and v# (not yet designated) = version number.

HP Memory   Select one or more memory from Core options-Memory section below,

- LRDIMM, RDIMM are all distinct memory technologies and cannot be mixed within a system. The DL380z supports both LRDIMM and RDIMM.
- HP memory from previous generation servers are not qualified or warranted with the DL380z. HP SmartMemory is required to realize the memory performance improvements and enhanced functionality listed in this document for Gen9.
- If only one processor is installed, only half of the total DIMM slots are available. When populating with

Core Options

two processors all DIMM slots are available.

- Kits described as LP include Low Power DIMMs. For more information on ProLiant Energy Efficient Features, see: www.hp.com/go/proliant-energy-efficient.
- Depending on the memory configuration and processor model, the memory speed may run at 2133MHz, 1866MHz, 1600MHz or 1333MHz. Please see Memory Population Table or the Online Memory Configuration Tool at: www.hp.com/go/ddr4memory-configurator

HP Power Supplies   Select one or more power supplies from Core Options-Power Supplies section below:

- Prior to selecting a power supply option, it is highly recommended that you review your system configuration in the HP Power Advisor tool to determine the right size power supply for your system configuration. The HP Power Advisor is located at: www.hp.com/go/hppoweradvisor.
- Mixing of power supplies in the same system is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your system.

HP Graphics Options   Select one or more graphics adapter from Additional options section below.

- Please see the HP Power Advisor for estimated power consumption of your individual system configuration prior to installing GPUs. The HP Power Advisor is located at: www.hp.com/go/hppoweradvisor

This section may contain FIO options, please see HP Computation & Graphics Accelerators section below.

Step 3: Choose Additional Factory Integratable Options

HP Unique Options   Select one or more Unique options from Core options section below.

- This section may contain FIO options, please see the Unique options section below.
- FIO indicates that this option is only available as a factory installable option.

HP I/O Expansion Options Select one or more Riser Kit options from Core options section below.

- To take advantage of the additional PCI slot upgrade, the second processor must be installed.
- This section may contain FIO options, please see HP I/O Expansion Options section below.
- FIO indicates that this option is only available as a factory installable option.

HP Drives   Select one or more drives from Core options-HP Drives section below:

- The components of a storage subsystem (e.g. the drive, the HBA/controller, firmware, and the system backplane) should operate at the same data transfer rate or the system bandwidth will be negotiated down to an acceptable level for all components.
- Hard drives have either a one year or three year warranty; refer to the specific hard drive QuickSpecs for details.
- The HP ProLiant Gen9 Smart Storage solutions are equipped with re-designed Small Form Factor (SFF 2.5 in) hot plug carriers for HP Qualified Hard Drives and Solid State Drives. These new carriers provide status and activity indicators as well as caution indicators for "Do Not Remove".

HP Flexible LOM   Select a FlexibleLOM from Core options-Networking section below,

- Only one FlexibleLOM can be added to the system. These options are upgradeable and can be changed from the original configuration after the system is shipped.

Core Options

- For 10Gb adapters, a minimum of two Gigabytes (2 GB) of system memory is required per each adapter.
- Please see the QuickSpecs for Technical Specifications and additional information:
  www.hp.com/go/ProLiantNICs

HP Networking   Select a standup NIC adapter from Core options-Networking section below,

- Please see the QuickSpecs for Technical Specifications and additional information:
  www.hp.com/go/ProLiantNICs
- These options are upgradeable and can be changed from the original configuration after the system is shipped.
- For 10Gb adapters, a minimum of two Gigabytes (2 GB) of system memory is required per each adapter.

HP Storage Controllers   Select one or more Storage options from Additional options section below.

- The embedded B140i controller will operate in UEFI only mode. For legacy support an additional controller will be needed, and for CTO orders please also select the Legacy mode settings part, 758959-B22
- This section may contain FIO options, please see HP Storage Controllers section below.
- FIO indicates that this option is only available as a factory installable option.

-

HP Cooling Options   Select one or more Fan Kits from Core options section below.

- This section may contain FIO options, please see HP Cooling Options section below.
- FIO indicates that this option is only available as a factory installable option.

HP Rail Kits   Select one type of rail kit from Additional options section below.

- Please take a moment to review the installation documentation that comes with the system to help you with the installation of your Gen9 system.
- To assist in the installation of the DL380z into the rack, an optional installation tool is available by contacting your local services representative (p/n 695539-001).
- See HP Rack Options in Additional Options section of this QuickSpecs for more rack kit choices.

Caution: HP recommends that a minimum of two people are required for all Rack Workstation installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.
NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for additional information.

HP Unique Options

HP DL380z Gen9 Universal Media Bay FIO Kit	787844-B21
HP DL380 Gen9 Universal Media Bay Kit (AMO)	724865-B21

NOTE: The HP DL380z Gen9 Universal Media bay provides front VGA and 2xUSB 3.0; plus support for 2xSFF front drives (787843-B21) and ODD support (No included); and can only be located in Bay1 in either a 8SFF or 8+8SFF front end.
NOTE: This can only be populated in Bay1

HP DL380z Gen9 Graphics Enablement FIO Kit	787850-B21
HP DL380 Gen9 Graphics Enablement Kit (AMO)	719082-B21

Core Options

NOTE: This kit includes alternative 2 Heatsinks plus 6 cables to enable GPU support with a 2P configuration. Other limitations apply, see Graphic section for more details.

HP DL380z Gen9 High Performance Temperature FIO Fan Kit	794560-B21
HP DL380 Gen9 High Performance Temperature Fan Kit (AMO)	719079-B21

NOTE: This kit is required for specific Ambient temperature environments, more details here: www.hp.com/go/proliant/Ashrae
NOTE: This kit is required for some GPGPU options, please see Graphics section for more details by card.

HP DL380z Gen9 2SFF Front/Rear SAS/SATA FIO Kit	787843-B21
HP DL380 Gen9 2SFF Front/Rear SAS/SATA Kit (AMO)	724864-B21

NOTE: For 2SFF in the front the Universal Media Bay (787844-B21) is required.

HP DL380z Gen9 Primary 2 Slot GPU Ready Riser Kit	787894-B21 FIO
Slot1: 1x Gen3 x16 FH/FL, 1xGen3 x8 FH/HL	719076-B21 AMO

HP DL380z Gen9 Secondary 3 Slot GPU Ready Riser Kit	787893-B21 FIO
Slot2: 2xGen3 x16 FH/FL, 1xGen3 x8 FH/HL	719073-B21 AMO

HP DL380 Gen9 8SFF Bay1 Cage/Backplane Kit	719067-B21

NOTE: To add an additional 8SFF drive cage in Bay1.
NOTE: This ships with 6 High Efficiency Fans.
NOTE: Selecting this option does not allow you to select the Universal Media Bay.

HP DL380 Gen9 Additional 8SFF Bay2 Cage/Backplane Kit	768857-B21

NOTE: To add an additional 8SFF drive cage in Bay 2.

HP 12Gb SAS Expander Card with Cables for DL380 Gen9	727250-B21

NOTE: SAS expander to enable 24SFF field upgrade
NOTE: This kit included 6 High Efficiency Fans.

HP DL380 Gen9 Systems Insight Display Kit	768900-B21

NOTE: The Systems Insight Display no longer ships as standard, but is available as a Factory Integrated, or field upgrade option.

HP Legacy FIO Mode Setting	758959-B22

NOTE: UEFI is the default, this FIO part can be used for CTO to enable Legacy mode.

Core Options

HP Processors

Entry Processors - E5-2600v3 series Processors

HP DL380 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) FIO Processor Kit	719053-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2603v3 (1.6GHz/6-core/15MB/85W) Processor Kit	719053-B21
HP DL380 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) FIO Processor Kit	719052-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2609v3 (1.9GHz/6-core/15MB/85W) Processor Kit	719052-B21

Base Processors - E5-2600v3 series Processors

HP DL380 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) FIO Processor Kit	719051-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2620v3 (2.4GHz/6-core/15MB/85W) Processor Kit	719051-B21
HP DL380z Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) FIO Processor Kit	787891-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2623v3 (3GHz/4-core/10MB/105W) Processor Kit	787891-B21 FIO 779556-B21 AMO
HP DL380 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) FIO Processor Kit	719050-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2630v3 (2.4GHz/8-core/20MB/85W) Processor Kit	719050-B21
HP DL380 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) FIO Processor Kit	719060-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2630Lv3 (1.8GHz/8-core/20MB/55W) Processor Kit	719060-B21
HP DL380z Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) FIO Processor Kit Ships with a High Performance Heatsink	787889-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2637v3 (3.5GHz/4-core/15MB/135W) Processor Kit Ships with a High Performance Heatsink	787889-B21 FIO 719058-B21 AMO
HP DL380 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) FIO Processor Kit	719049-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2640v3 (2.6GHz/8-core/20MB/90W) Processor Kit	719049-B21

Performance Processors - E5-2600v3 series Processors

HP DL380z Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) FIO Processor Kit Ships with a High Performance Heatsink	787887-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2643v3 (3.4GHz/6-core/20MB/135W) Processor Kit Ships with a High Performance Heatsink	787887-B21 FIO 719057-B21 AMO
HP DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) FIO Processor Kit	719048-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2650v3 (2.3GHz/10-core/25MB/105W) Processor Kit	719048-B21
HP DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) FIO Processor Kit	719059-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2650Lv3 (1.8GHz/12-core/30MB/65W) Processor Kit	719059-B21
HP DL380z Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) FIO Processor Kit	787885-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2660v3 (2.6GHz/10-core/25MB/105W) Processor Kit	787885-B21 FIO 762764-B21 AMO
HP DL380z Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) FIO Processor Kit Ships with a High Performance Heatsink	787883-L21 FIO

QuickSpecs

Core Options

HP DL380z Gen9 Intel® Xeon® E5-2667v3 (3.2GHz/8-core/20MB/135W) Processor Kit Ships with a High Performance Heatsink	787883-B21 FIO 719056-B21 AMO
HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) FIO Processor Kit Ships with a High Performance Heatsink	719046-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2670v3 (2.3GHz/12-core/30MB/120W) Processor Kit Ships with a High Performance Heatsink	719046-B21
HP DL380z Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) FIO Processor Kit Ships with a High Performance Heatsink	787881-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2680v3 (2.5GHz/12-core/30MB/120W) Processor Kit Ships with a High Performance Heatsink	787881-B21 FIO 762766-B21 AMO
HP DL380 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) FIO Processor Kit Ships with a High Performance Heatsink	719055-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2683v3 (2GHz/14-core/35MB/120W) Processor Kit Ships with a High Performance Heatsink	719055-B21
HP DL380z Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) FIO Processor Kit	787879-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2687Wv3 (3.1GHz/10-core/25MB/160W) Processor Kit	787879-B21 FIO 762768-B21 AMO
HP DL380z Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) FIO Processor Kit Ships with a High Performance Heatsink	787877-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2690v3 (2.6GHz/12-core/30MB/135W) Processor Kit Ships with a High Performance Heatsink	787877-B21 FIO 719044-B21 AMO
HP DL380 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) FIO Processor Kit Ships with a High Performance Heatsink	762760-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2695v3 (2.3GHz/14-core/35MB/120W) Processor Kit Ships with a High Performance Heatsink	762760-B21
HP DL380z Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) FIO Processor Kit Ships with a High Performance Heatsink	787875-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2697v3 (2.6GHz/14-core/35MB/145W) Processor Kit Ships with a High Performance Heatsink	787875-B21 FIO 719054-B21 AMO
HP DL380 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) FIO Processor Kit Ships with a High Performance Heatsink	781913-L21 FIO
HP DL380 Gen9 Intel® Xeon® E5-2698v3 (2.3GHz/16-core/40MB/135W) Processor Kit Ships with a High Performance Heatsink	781913-B21
HP DL380z Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) FIO Processor Kit Ships with a High Performance Heatsink	787873-L21 FIO
HP DL380z Gen9 Intel® Xeon® E5-2699v3 (2.3GHz/18-core/45MB/145W) Processor Kit Ships with a High Performance Heatsink	787873-B21 FIO 781915-B21 AMO

NOTE: Up to 2 processors supported. Performance and Energy Star Model configurations include two processors.
NOTE: HT indicates that the processor model supports Intel® Hyper-Threading Technology
NOTE: Turbo2: Intel® Turbo Boost Technology 2.0 provides more computing power when you need it with performance that adapts to spikes in your workload and delivers more performance upside than then previous generation turbo technology.
NOTE: DDR4 speed is the maximum memory speed of the processor. Actual memory speed may depend on the quantity and type of DIMMs installed.
NOTE: The xxxxxx-L21 is the first processor shipped, the xxxxxx-B21 is the 2nd processor and ships with 2 additional FANs for factory of field

Core Options

installation.
NOTE: Double wide PCIe cards are only supported in risers with the Processors leveraging the High Performance Heatsink. For Processors requiring double wide GPU support please order the GPU enablement kit (
787850-B21)

HP Memory

Registered DIMMs (RDIMMs) for E5-2600v3 Series
NOTE: The following memory is supported by the E5-2600v3 series Processors.
NOTE: Depending on Processor selected this memory will run at 1600, 1866 or 2133MHz

HP VWS 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	787864-B21 FIO
HP 8GB (1x8GB) Single Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726718-B21 AMO
HP 8GB (1x8GB) Dual Rank x8 DDR4-2133 CAS-15-15-15 Registered Memory Kit	759934-B21
HP 16GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	726719-B21
HP 32GB (1x16GB) Dual Rank x4 DDR4-2133 CAS-15-15-15 Registered Memory Kit	728629-B21

Load Reduced DIMMs (LRDIMMs) for E5-2600v3 Series
NOTE: The following memory is supported by the E5-2600v3 series Processors.
NOTE: Depending on Processor selected this memory will run at 1600, 1866 or 2133MHz

HP VWS 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	787865-B21 FIO
HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726720-B21 AMO
HP VWS 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	787866-B21 FIO
HP 32GB (1x32GB) Quad Rank x4 DDR4-2133 CAS-15-15-15 Load Reduced Memory Kit	726722-B21 AMO

HP Optical Drives

HP 9.5mm SATA DVD-ROM HP Black Gen9 Optical Drive NOTE: The Universal Media Bay (787844-B21) is required for this option	726536-B21
HP 9.5mm SATA DVD-RW HP Black G9 Optical Drive NOTE: The Universal Media Bay (787844-B21) is required for this option	726537-B21
HP Mobile USB Non Leaded System DVD RW Drive	701498-B21

HP Drives

SAS Hot Plug SFF (2.5-inch) Enterprise (ENT) Drives

HP 1.2TB 6G SAS 10K rpm SFF (2.5-inch) SC Dual Port Enterprise 3yr Warranty Hard Drive	718162-B21
HP VWS 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	787861-B21 FIO
HP 900GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652589-B21 AMO
HP 600GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759212-B21
HP VWS 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	787860-B21 FIO
HP 600GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652583-B21 AMO
HP 450GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759210-B21
HP 450GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652572-B21
HP 300GB 12G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	759208-B21
HP 300GB 6G SAS 10K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652564-B21
HP VWS 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	787862-B21 FIO
HP 146GB 6G SAS 15K rpm SFF (2.5-inch) SC Enterprise 3yr Warranty Hard Drive	652605-B21 AMO

SAS Hot Plug SFF (2.5-inch) Midline (MDL) Drives

HP 1TB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652749-B21
HP 500GB 6G SAS 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	652745-B21

Core Options

SATA Hot Plug SFF (2.5-inch) Midline (MDL) Drives

HP VWS 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	787863-B21 FIO
HP 1TB 6G SATA 7.2K rpm SFF (2.5-inch) SC Midline 1yr Warranty Hard Drive	655710-B21 AMO

12G SAS Hot Plug SFF (2.5-inch) Enterprise Performance Solid State Drives

HP 800GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741159-B21
HP 400GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741155-B21
HP 200GB 12G SAS High Endurance SFF 2.5-in SC Enterprise Performance 3yr Wty Solid State Drive	741151-B21

12G SAS Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP VWS 800GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	787859-B21 FIO
HP 800GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	741146-B21 AMO
HP VWS 400GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	787858-B21 FIO
HP 400GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	741142-B21 AMO
HP VWS 200GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	787857-B21 FIO
HP 200GB 12G SAS Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	741138-B21 AMO

12G SAS Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives

HP 1.6TB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762263-B21
HP 800GB 12G SAS Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	762261-B21

6G SATA Hot Plug SFF (2.5-inch) Enterprise Mainstream Solid State Drives

HP VWS800GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	787853-B21 FIO
HP 800GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691868-B21 AMO
HP VWS 400GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	787852-B21 FIO
HP 400GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691866-B21 AMO
HP 200GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691864-B21
HP 100GB 6G SATA Mainstream Endurance SFF 2.5-in SC Enterprise Mainstream 3yr Wty Solid State Drive	691862-B21

6G SATA Hot Plug SFF (2.5-inch) Enterprise Value Solid State Drives

HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717973-B21
HP VWS 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	787855-B21 FIO
HP 800GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty M1 Solid State Drive	764929-B21 AMO
HP VWS 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	787856-B21 FIO
HP 600GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739898-B21 AMO

Core Options

HP 480GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717971-B21
HP 300GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	739888-B21
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	717969-B21
HP VWS 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	787854-B21 FIO
HP 240GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Value 3yr Wty Solid State Drive	764923-B21 AMO
HP 240GB 6G SATA VE 2.5in SC EV M1 SSD	764925-B21
HP 480GB 6G SATA VE 2.5in SC EV M1 SSD	764927-B21
HP 120GB 6G SATA VE 2.5in SC EV G1 SSD	756621-B21
HP 240GB 6G SATA VE 2.5in SC EV G1 SSD	756636-B21
HP 480GB 6G SATA VE 2.5in SC EV G1 SSD	756657-B21
HP 960GB 6G SATA LE 2.5in SC EL G1 SSD	756601-B21
HP 1.6TB 6G SATA VE 2.5in SC EV SSD	757339-B21

6G SATA Hot Plug SFF (2.5-inch) Enterprise Boot Solid State Drives

HP 120GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	717965-B21
HP 80GB 6G SATA Value Endurance SFF 2.5-in SC Enterprise Boot 3yr Wty Solid State Drive	734360-B21

Hard Drive Blank Kits

HP Small Form Factor Hard Drive Blank Kit	666987-B21

Disk Enclosures

HP D2600 w/12 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 48TB Bundle	E7W32A

Hard Drive Kits

HP DL380 Gen9 8SFF Bay1 Cage/Backplane Kit	719067-B21
HP DL380 Gen9 Additional 8SFF Bay2 Cage/Backplane Kit	768857-B21
HP DL380z Gen9 2SFF Front/Rear SAS/SATA Kit	787843-B21

Media Bay Kits

HP DL380z Gen9 Universal Media Bay FIO Kit	787844-B21
HP DL380 Gen9 Universal Media Bay Kit (AMO)	724865-B21

NOTE: The Universal Media Bay offers front VGA and 2xUSB 2.0, plus ability to add optional Optical drive, or 2SFF.
NOTE: This is only compatible with the 8SFFf or 8+8 SFF front end configurations.

HP Networking

1 Gigabit Ethernet adapters

HP Ethernet 1Gb 4-port 331T Adapter	647594-B21
HP Ethernet 1Gb 2-port 361T Adapter	652497-B21
HP Ethernet 1Gb 2-port 332T Adapter	615732-B21
HP Ethernet 1Gb 4-port 366FLR FIO Adapter	684217-B21
HP Ethernet 1Gb 4-port 331FLR Adapter	629135-B22

10 Gigabit Ethernet adapters

HP Ethernet 10Gb 2-port 530SFP Adapter	652503-B21
HP Ethernet 10Gb 2-port 530T Adapter	656596-B21
HP Ethernet 10Gb 2-port 560SFP+ Adapter	665249-B21
HP Ethernet 10Gb 2-port 561T Adapter	716591-B21
HP Ethernet 10Gb 2-port 570SFP+ Adapter	718904-B21

Core Options

HP FlexFabric 10Gb 2-port 556FLR-SFP+ Adapter		727060-B21
HP StoreFabric CN1200E 10Gb Converged Network Adapter		E7Y06A

NOTE: A minimum of two Gigabytes (2 GB) of system memory is required per each adapter.
NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs.

FlexibleLOM Adapters

HP Ethernet 1Gb 4-port 366FLR Adapter	665240-B21
HP FlexFabric 10Gb 2-port 533FLR-T Adapter	700759-B21
HP VWS FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	787869-B21 FIO
HP FlexFabric 10Gb 2-port 534FLR-SFP+ Adapter	700751-B21 AMO
HP VWS Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	787870-B21 FIO
HP Ethernet 10Gb 2-port 560FLR-SFP+ Adapter	665243-B21 AMO
HP Ethernet 10Gb 2-port 561FLR-T Adapter	700699-B21

NOTE: Only one FlexibleLOM can be added to the system. These options are upgradeable and can be changed from the original configuration after the system is shipped.
NOTE: Direct Attach Cable (DAC) for copper environments or fiber transceivers and cables for fiber-optic environments must be purchased separately. Please see the related NIC QuickSpecs for Technical Specifications and additional information: www.hp.com/go/ProLiantNICs.

HP InfiniBand	**HP InfiniBand FDR 2-port 545QSFP Adapter**	702211-B21

HP I/O Expansion Options	**HP DL380z Gen9 Primary 2 Slot GPU Ready Riser Kit**	787894-B21 FIO
	NOTE: This is for slot 2 and supports double wide GPGPUs	719076-B21 AMO
	Slot1: 1x Gen3 x16 FH/FL, 1xGen3 x8 FH/HL	
	HP DL380z Gen9 Secondary 3 Slot GPU Ready Riser Kit	787893-B21 FIO
	NOTE: This is for slot 2 and supports double wide GPGPUs	719073-B21 AMO
	Slot2: 2x Gen3 x16 FH/FL, 1xGen3 x8 FH/HL	

NOTE: To support Graphics cards please also order the DL380z Gen9 Graphics Enablement kit, 787850-B21 that ships with 2 Performance Heatsinks and 6 cables. 1 kit needed for a 2P unit.

HP Power Supplies

NOTE: Mixing of power supplies in the same system is not supported. All power supplies must be of the same input voltage, output rating, and efficiency rating. If non-matching power supplies are installed, you may receive an error message and/or experience operational issues with your system.
NOTE: Prior to selecting a power supply option, it is highly recommended that you review your system configuration in the HP Power Advisor tool to determine the right size power supply for your system configuration. The HP Power Advisor is located at: www.hp.com/go/hppoweradvisor.

HP Flex Slot Platinum Hot-plug Power supplies

HP 500W Flex Slot Platinum Hot Plug Power Supply Kit	720478-B21
HP VWS 800W Flex Slot Platinum Hot Plug Power Supply Kit	787871-B21 FIO
HP 800W Flex Slot Platinum Hot Plug Power Supply Kit	720479-B21 AMO
HP VWS 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	787872-B21 FIO
HP 1400W Flex Slot Platinum Plus Hot Plug Power Supply Kit	720620-B21 AMO

NOTE: The above power supply options are all 80Plus Platinum-certified with an efficiency rating of up to 94%. Support for HP Power Discovery Services is included with the 1400W Flex Slot option. Power specifications and technical content for all HP System power supplies can be found at www.hp.com/go/proliant/powersupply.
NOTE: Maximum of 2 Flex Slot PS per platform

Core Options

HP Computation and	**HP DL380z Gen9 Graphics Enablement FIO Kit**	787850-B21
Graphics Accelerators	**HP DL380 Gen9 Graphics Enablement Kit (AMO)**	719082-B21

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.
NOTE: There are limitations on the chassis and processor supported when adding Graphics accelerators
NOTE: Some cards will require the addition of the High Performance Ambient Temperature Fan Kit (794560-B21)

HP NVIDIA GRID K1 Quad GPU PCIe FIO Graphics Accelerator	787848-B21
HP NVIDIA GRID K1 Quad GPU PCIe Graphics Accelerator (AMO)	J0G94A

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: Is supported in all chassis with either increased or Max cooling settings
NOTE: The Primary GPU riser (787894-B21) is required to support this in slot1
NOTE: The secondary GPU riser (787893-B21) is required to support this in slot2 (2nd processor required).
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

NVIDIA GRID K2 Reverse Air Flow Dual GPU PCIe FIO Graphics Accelerator	766995-B21
NVIDIA GRID K2 Reverse Air Flow Dual GPU PCIe Graphics Accelerator (AMO)	753958-B21

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.
NOTE: There are limitations on the chassis and processor supported when adding Graphics accelerators
NOTE: This card will require the addition of the High Performance Ambient Temperature Fan Kit (794560-B21)

N**VIDIA Tesla K40C 12GB Computational Accelerator**	753960-B21

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: This is supported in all chassis.
NOTE: The Primary GPU riser (719076-B21) is required to support this in slot1
NOTE: The secondary GPU riser (787893-B21) is required to support this in slot2 (2nd processor required).
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

HP NVIDIA Quadro K2200 FIO Graphics Accelerator	787845-B21
HP NVIDIA Quadro K2200 Graphics Accelerator (AMO)	J0G89A

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: This is supported in all chassis.
NOTE: The Primary GPU riser (787894-B21) is required to support this in slot1
NOTE: The secondary GPU riser (787893-B21) is required to support this in slot2 (2nd processor required).
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

HP NVIDIA Quadro K4200 FIO Graphics Accelerator	787846-B21

Core Options

HP NVIDIA Quadro K4200 Graphics Accelerator (AMO)   J0G90A

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: This is supported in all chassis.
NOTE: The Primary GPU riser (787894-B21) is required to support this in slot1
NOTE: The secondary GPU riser (787893-B21) is required to support this in slot2 (2nd processor required).
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

HP NVIDIA Quadro K5200 FIO Graphics Accelerator   787851-B21
HP NVIDIA Quadro K5200 Graphics Accelerator (AMO)   J0G91A

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: This is supported in all chassis.
NOTE: The Primary GPU riser (787894-B21) is required to support this in slot1
NOTE: The secondary GPU riser (787893-B21) is required to support this in slot2 (2nd processor required).
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

NVIDIA Quadro K6000 PCI-E FIO Graphics Adapter   787847-B21
NVIDIA Quadro K6000 PCI-E Graphics Adapter (AMO)   730874-B21

NOTE: This GPU enablement kit includes 2 Heatsinks and 6 cables to enable double wide GPUs to be supported.
NOTE: This is supported in all chassis.
NOTE: The Primary GPU riser (787894-B21) is required to support this in slot1
NOTE: The secondary GPU riser (787893-B21) is required to support this in slot2 (2nd processor required).
NOTE: For doublewide GPU support you are required to have at least 1x1400W Power Supply (720620-B21), per card.

HP 150W PCI-E Power Cable Kit   669777-B21
NOTE: Each DL380z Gen9 Workstation will accommodate up to three single-width or two double width PCIe cards for Computational Graphics support
NOTE: The NVIDIA Tesla, GRID and Quadro modules are supported only on 64-bit versions of Linux and Windows operating systems as well as on Virtual Machine client operating systems. The supported bare metal operating systems are RHEL6, and Windows 7 Professional 64-Bit.
NOTE: There are limitations on fan types, setting, and chassis support by card.

HP Cooling Options   **HP DL380z Gen9 High Performance Fan Kit**   794560-B21 FIO
                                                                               719079-B21 AMO

NOTE: High Performance Temperature Fan kit consists of 6 redundant, hot-plug fans that replace all the standard Fans in the unit, and fill all 6-Fan cages
NOTE: The High Performance Temperature Fan Kit is needed to support certain Graphics card configurations; or ASHRAE operating environments.
NOTE: For elevated ambient temperature support please see: www.hp.com/servers/ASHRAE

Additional Options

NOTE: Some options may not be integrated at the factory. To ensure only valid configurations are ordered, HP recommends the use of an HP approved configurator. Contact your local sales representative for additional information.

HP Insight Software	**HP Insight Control**	
	HP Insight Control including 1yr 24x7 Technical Support and Updates Single Server License	C6N27A
	HP Insight Control including 1yr 24x7 Technical Support and Updates Electronic License	C6N28ABE
	NOTE: The Electronic software license is available in EMEA only.	
	HP Insight Control Server Provisioning Media Kit	BD883A
	HP Insight Management Media Kit	C6N31A
	NOTE: Electronic and Flexible-Quantity licenses can be used to purchase multiple licenses with a single activation key.	
	NOTE: Customer will receive a license entitlement certificate. The license entitlement certificate must be redeemed online or via fax in order to obtain the license activation key(s). Includes one year of 24 x 7 HP Software Technical Support and Update Service.	
	NOTE: Licenses ship without media. The HP Insight Control Media Kit can be ordered separately, or can be downloaded at: http://www.hp.com/go/insightupdates.	
	NOTE: For additional license options please see the QuickSpecs at: http://h18000.www1.hp.com/products/quickspecs/12631_div/12631_div.html.	
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle Single Server FIO License	C6N36A
	HP Insight Control including 1yr 24x7 Support ProLiant ML/DL/BL-bundle FIO Electronic License	C6N36ABE

Embedded Management	**HP iLO Advanced**	
	HP iLO Advanced Electronic License with 3yr 24x7 Tech Support and Updates	BD506AAE
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates Single Server License	512485-B21
	HP iLO Advanced 1 Server License with 3yr 24x7 Tech Support and Updates	BD505A
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates E-LTU	E6U59ABE
	HP iLO Advanced including 3yr 24x7 Technical Support and Updates E-LTU	E6U64ABE
	HP iLO Advanced including 1yr 24x7 Technical Support and Updates Electronic License	TA850AAE

High Performance Clusters	**HP Cluster Management Utility**	
	HP Insight Cluster Management Utility 1yr 24x7 Flexible License	QL803B
	HP Insight Cluster Management Utility 3yr 24x7 Flexible License	BD476A
	NOTE: These part numbers can be used to purchase one certificate for multiple licenses and support with a single activation key. Each license is for one node (workstation). Customer will receive a printed end user license agreement and license entitlement certificate via physical shipment. The license entitlement certificate must be redeemed online in order to obtain a license key. Customer also will receive a support agreement.	
	HP Insight Cluster Management Utility Media	BD477A
	NOTE: For additional license kits please see the QuickSpecs at: http://h18004.www1.hp.com/products/quickspecs/12612_div/12612_div.html.	

HP Security	**HP DL380z 2U Security Bezel Kit**	787895-B21 FIO
		666988-B21 AMO
	HP Trusted Platform Module Option	488069-B21
	NOTE: The TPM (Trusted Platform Module) is a microcontroller chip that can securely store artifacts used to authenticate the workstation platform. These artifacts can include passwords, certificates and encryption keys. Windows® BitLocker™ Drive Encryption (BitLocker) is a data protection feature available in various Microsoft Windows operating systems. BitLocker leverages the enhanced security capabilities of a Trusted Platform Module	

Additional Options

(TPM) version 1.2. The TPM works with BitLocker to help protect user data and to ensure that a system running Windows has not been tampered with while the system was offline. For more information about TPM, including a white paper, go to: www.hp.com/go/TPM.
NOTE: OS pre-installed units will come with the partition required for TPM deployment.
NOTE: The TPM key is unique to every TPM deployed system and must be retained. Misplacing or losing the key could result in data loss.

HP Storage Controllers	**SAS Controllers**
	HP Flexible Smart Array Controllers
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int SAS Controller (AMO) 726736-B21
	NOTE: Includes the HP Smart Storage Battery
	HP Smart Array P440ar/2GB FBWC 12Gb 2-ports Int FIO SAS Controller 787840-B21
	NOTE: Includes the HP Smart Storage Battery
	HP H240ar 12Gb 2-port Int Smart Host Bus Adapter (AMO) 726757-B21
	HP H240ar 12Gb 2-port Int FIO Smart Host Bus Adapter 787841-B21
	HP Smart Array Controllers
	HP H241 Smart HBA
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int SAS Controller 726821-B21
	HP Smart Array P840/4GB FBWC 12Gb 2-ports Int SAS Controller 726897-B21
	HP Smart Array P441/4GB FBWC 12Gb 2-ports Ext SAS Controller 726825-B21
	HP Smart Array P440/4GB FBWC 12Gb 1-port Int FIO SAS Controller 761872-B21
	HP Smart Array P840/4GB FBWC 12Gb 2-ports Int FIO SAS Controller 761874-B21
	HP Cable Options
	HP DL380 Gen9 P840/440 SAS Cable Kit 783007-B21
	HP DL380 Gen9 2SFF Front SAS x4 Cable Kit 783008-B21
	HP DL380 Gen9 8SFF SAS Cable Kit 783009-B21
	HP DL380 Gen9 2SFF x8 Front Cable Kit 785989-B21
	HP DL380 Gen9 8SFF H240 Cable Kit 786092-B21
	For details on cabling options, additional information available here: Cabling Matrix
	Optional Upgrades
	HP 96W Smart Storage Battery with 145mm Cable for DL/ML/SL Servers 727258-B21
	NOTE: Provide backup power for multiple HP Smart Array controllers or other devices (up to 16)
	HP 12Gb SAS Expander Card with Cables for DL380 Gen9 727250-B21

HP Tape Backup	**NOTE:** For the complete range of tape drives, autoloaders, libraries and media see: http://www.hp.com/go/tape. For hardware and software compatibility of HP tape backup products see: http://www.hp.com/storage/SPOCK and http://www.hp.com/go/ebs.
	Tape Drives
	HP StoreEver 1/8 G2 LTO-6 Ultrium 6250 FC Tape Autoloader C0H19A
	HP StoreEver LTO-6 Ultrium 6250 Tape Drive in 1U Rack-mount Kit C0L99A
	HP StoreEver LTO-4 Ultrium 1760 SAS External Tape Drive EH920B
	HP StoreEver LTO-4 Ultrium 1760 SAS (1) in 1U Rack-mount Kit EH946C
	HP StoreEver LTO-5 Ultrium 3000 SAS External Tape Drive EH958B
	HP StoreEver LTO-5 Ultrium 3000 SAS Tape Drive in 1U Rack-mount EJ014B
	HP StoreEver LTO-5 Ultrium 3280 SAS External Tape Drive EH900B

Additional Options

HP StoreEver LTO-5 Ultrium 3280 SAS Tape Drive in 3U Rack-mount	EJ013B
HP StoreEver LTO-6 Ultrium 6250 External Tape Drive	EH970A
HP StoreEver 1U SAS Rack-mount Kit	AE459B
HP StoreEver LTO-4 Ultrium 1760 SCSI External Tape Drive	EH922B

HP Tape Storage Systems

HP StoreEver MSL6480

HP StoreEver MSL6480 Scaleable Expansion Module	QU626A

NOTE: Please see the QuickSpecs for Technical Specifications and additional information:
http://h18000.www1.hp.com/products/quickspecs/14604_div/14604_div.html (Worldwide).

HP StoreEver MSL6480 Scalable Base Module	QU625A
HP MSL2024 0-Drive Tape Library	AK379A
HP MSL4048 0-Drive Tape Library	AK381A
HP MSL Library Extender Kit	AQ746A

HP Storage Options	**NOTE:** For the complete listing of Fibre Channel Host Bus Adapters for Windows and Linux, please see: http://h18006.www1.hp.com/storage/saninfrastructure/hba.html.	
	Emulex Fibre Channel HBAs	
	HP 81E 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AJ762B
	HP 82E 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ763B
	HP StoreFabric SN1100E 16Gb Single Port Fibre Channel Host Bus Adapter	C8R38A
	HP StoreFabric SN1100E 16Gb Dual Port Fibre Channel Host Bus Adapter	C8R39A
	QLogic Fibre Channel HBAs	
	HP 81Q 8Gb 1-port PCIe Fibre Channel Host Bus Adapter	AK344A
	HP 82Q 8Gb 2-port PCIe Fibre Channel Host Bus Adapter	AJ764A
	HP StoreFabric SN1000Q 16GB 1-port PCIe Fibre Channel Host Bus Adapter	QW971A
	HP StoreFabric SN1000Q 16GB 2-port PCIe Fibre Channel Host Bus Adapter	QW972A
	Converged Network Adapter	
	HP StoreFabric CN1100R Dual Port Converged Network Adapter	QW990A
HP Disk Storage Systems	**Disk Enclosures**	
	HP D6000 Dual I/O Module Disk Enclosure	QQ695A
	HP D6000 w/35 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 140TB Bundle	E7W30A
	HP D6000 w/70 4TB 6G SAS 7.2K LFF Dual Port MDL HDD 280TB Bundle	E7W31A
	HP D6000 w/35 2TB 6G SAS 7.2K LFF Dual port MDL HDD 70TB Bundle	QQ697A
	HP D6000 w/70 2TB 6G SAS 7.2K LFF Dual port MDL HDD 140TB Bundle	QQ698A
	HP D6000 w/35 3TB 6G SAS 7.2K LFF Dual port MDL HDD 105TB Bundle	QQ699A
	HP D6000 w/70 3TB 6G SAS 7.2K LFF Dual port MDL HDD 210TB Bundle	QQ700A
HP Data Center Racks	**HP 11000 G2 Series Racks**	
	HP 11648 1075mm Pallet Universal Rack	H6J87A
	HP 11648 1075mm Shock Universal Rack	H6J88A
	HP 11642 1075mm Pallet Universal Rack	H6J65A
	HP 11642 1075mm Shock Universal Rack	H6J66A
	HP 11642 1200mm Pallet Universal Rack	H6J67A
	HP 11642 1200mm Shock Universal Rack	H6J68A

Additional Options

HP 11636 1075mm Pallet Universal Rack	H6J77A
HP 11636 1075mm Shock Universal Rack	H6J78A
HP 11622 G2 1075mm Pallet Universal Rack	H6J83A
HP 11622 G2 1075mm Shock Universal Rack	H6J84A
HP 11614 1075mm Shock Universal Rack	H6J82A

NOTE: Please see the HP 11000 G2 Series Racks QuickSpec for information on additional racks options and rack specifications.

HP Intelligent Series Racks

HP 647 1075mm Pallet Intelligent Series Rack	BW911A
HP 647 1075mm Shock Intelligent Series Rack	BW912A
HP 647 1200mm Pallet Intelligent Series Rack	BW913A
HP 647 1200mm Shock Intelligent Series Rack	BW914A
HP 642 1075mm Pallet Intelligent Series Rack	BW903A
HP 642 1075mm Shock Intelligent Series Rack	BW904A
HP 642 1200mm Pallet Intelligent Series Rack	BW907A
HP 642 1200mm Shock Intelligent Series Rack	BW908A
HP 636 1075mm Pallet Intelligent Series Rack	BW895A
HP 636 1075mm Shock Intelligent Series Rack	BW896A
HP 842 1075mm Pallet Intelligent Series Rack	BW917A
HP 842 1075mm Shock Intelligent Series Rack	BW918A

NOTE: Please see the HP Intelligent Series Racks QuickSpec for information on additional racks options and rack specifications.

HP Value Series Rack

HP V142 1075mm deep Pallet 100 series Rack	AF046A

NOTE: Please see the HP Value Series Rack QuickSpec for information on additional racks options and rack specifications.

HP Power Distribution Units (PDUs)

HP Basic Power Distribution Unit (bPDU)

HP 4.9kVA 24A High Voltage NA/JP Core Modular Power Distribution Unit	252663-D74
HP 8.3kVA 40A High Voltage NA/JP Core Modular Power Distribution Unit	252663-D75
HP 7.3kVA 32A High Voltage INTL Core Modular Power Distribution Unit	252663-B33
HP 17.3kVA 48A Three Phase NA/JP Modular Power Distribution Unit	AF511A
HP 22kVA 32A Three Phase INTL Core Modular Power Distribution Unit	AF518A
HP 3.6kVA 200-240 Volt Detachable C20 Input (12xC13) WW Basic PDU	H5M56A
HP 4.9kVA 208 Volt L6-30 Input (20xC13) NA/JP Basic PDU	H5M58A
HP 7.3kVA 230 Volt IEC309 32A Input (20xC13) INTL Basic PDU	H5M68A
HP 7.3kVA 230 Volt IEC309 32A Input (24xC13/6xC19) INTL Basic PDU	H5M70A

NOTE: To learn more about HP Basic Power Distribution Units (bPDU), please visit the HP website at www.hp.com/go/pdu.

HP Monitored Power Distribution Units (mPDU)

HP 2.8kVA 120 Volt L5-30 Input (12xNEMA 5-20R)NA/JP Monitored PDU	D9N43A
HP 3.6kVA 200-240 Volt Detachable C20 Input (16xC13) WW Monitored PDU	D9N45A
HP 4.9kVA 208 Volt L6-30 Input (20xC13/4xC19) NA/JP Monitored PDU	D9N47A
HP 7.3kVA 230 Volt IEC309 32A Input (20xC13/4xC19) INTL Monitored PDU	D9N48A
HP 7.3kVA 230 Volt IEC309 32A Input (32xC13/4xC19) INTL Monitored PDU	D9N50A
HP 11kVA 400 Volt IEC309 16A 3-Phase Input (18xC13/3xC19) INTL Monitored PDU	D9N55A
HP 11kVA 400 Volt IEC309 16A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N57A
HP 17.3kVA 208 Volt IEC309 60A 3-Phase Input (12xC13/12xC19) NA/JP Monitored PDU	D9N59A

Additional Options

HP 22kVA 400 Volt IEC309 32A 3-Phase Input (30xC13/3xC19) INTL Monitored PDU	D9N56A
HP 22kVA 400 Volt IEC309 32A 3-Phase Input (12xC13/12xC19) INTL Monitored PDU	D9N60A

NOTE: Please see the HP Monitored Power Distribution Units QuickSpec for information on additional options and product specifications.

HP Intelligent Power Distribution Units (iPDU)

HP 4.9kVA 24A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF520A
HP 8.3kVA 40A Single Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF521A
HP 8.6kVA 24A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF522A
HP 17.3kVA 48A Three Phase NA/JP Core Intelligent Modular Power Distribution Unit	AF523A
HP 17.3kVA 48A 208V Three Phase 12 Outlet Core NA/JP Intelligent Power Distribution Unit	AF535A
HP 4.9kVA 24A Single Phase NA/JP Intelligent Modular Power Distribution Kit	AF531A
HP 8.6kVA 24A Three Phase NA/JP Intelligent Modular Power Distribution Kit	AF532A
HP 7.3kVA 32A Single Phase INTL Core Intelligent Modular Power Distribution Unit	AF525A
HP 7.3kVA 32A Single Phase INTL Intelligent Modular Power Distribution Kit	AF534A

NOTE: Please see the HP Intelligent Power Distribution Units QuickSpec for information on additional options and product specifications.

HP Rack Mount Consoles, KVM Switches, and Keyboards	**HP Rack Mount Consoles**

HP TFT7600 G2 KVM Console Rack mount Keyboard US Monitor	AZ870A
HP TFT7600 G2 KVM Console Rack mount Keyboard Intl Monitor	AZ884A

NOTE: Please see the HP Rack Console QuickSpec for information on additional options and product specifications.

Rail Kits
NOTE: Gen9 rail kits have changed significantly from prior generation rail kits. Please take a moment to review the installation documentation that comes with the system to help you with the installation of your Gen9 workstation.
NOTE: Rail kits are optional for DL380z Gen9 and are no longer included standard with the workstation. Customers have the option to purchase their workstation without a rail kit.
NOTE: Ball bearing and Easy Install rail kits contain telescoping rails which allow for in-rack serviceability.
NOTE: To assist in the installation of the workstation into the rack an optional installation tool is available by contacting your local services representative (p/n 695539-001).
Caution: HP recommends that a minimum of two people are required for all Rack Workstation installations. Please refer to your installation instructions for proper tools and number of people to use for any installation.

HP 2U Small Form Factor Easy Install Rail Kit NOTE: Does not include CMA (733664-B21)	733660-B21
HP 2U Large Form Factor Easy Install Rail Kit NOTE: Does not include CMA (733664-B21)	733662-B21
HP 2U Cable Management Arm for Easy Install Rail Kit	733664-B21
HP 2U Small Form Factor Ball Bearing Rail Kit NOTE: Does not include CMA (720865-B21)	720863-B21
HP 2U Large Form Factor Ball Bearing Rail Kit NOTE: Does not include CMA (720865-B21)	720864-B21
HP 2U Cable Management Arm for Ball Bearing Rail Kit	720865-B21

HP KVM Switches

HP 1x1Ex8 KVM IP Console Switch G2 with Virtual Media CAC Software	AF620A
HP 2x1Ex16 KVM IP Console Switch G2 with Virtual Media CAC Software	AF621A
HP Server Console 0x2x8 Port Analog Switch	AF616A
HP Server Console 0x2x16 Port Analog Switch	AF617A
HP 0x2x16 KVM Server Console Switch G2 with Virtual Media CAC Software	AF618A
HP 1x4 USB/PS2 KVM Console Switch	AF611A

NOTE: To learn more, please visit the HP KVM Switches web page.

Additional Options

HP USB Keyboard and Mouse

HP USB BFR with PVC Free US Keyboard/Mouse Kit	631341–B21
HP USB BFR with PVC Free Intl Keyboard/Mouse Kit	672097-B33

NOTE: Please see the HP USB Keyboard and Mouse QuickSpec for information on additional options and product specifications.

HP 1U Rack mount Keyboard with USB

HP 1U US Rack mount Keyboard with USB	AG072A
HP 1U INT Rack mount Keyboard with USB	AG086A

NOTE: Please see the HP 1U Rack mount Keyboard QuickSpec for information on additional options and product specifications.

HP Uninterruptible Power Systems (UPS)	**HP Rack-mountable UPS**	
	HP R1.5kVA G3 1U INTL Uninterruptible Power System	AF471A
	HP R1.5kVA G3 1U JP/TW Uninterruptible Power System	AF470A
	HP R/T3000 G2 2U L530 Low Voltage NA/JP Uninterruptible Power System	AF466A
	HP R/T3000 G2 2U Detachable Cord High Voltage INTL Uninterruptible Power System	AF468A
	HP R5KVA 3U IEC309-32A High Voltage INTL Uninterruptible Power System	AF461A
	HP R7KVA 4U IEC–32A High Voltage INTL Uninterruptible Power System	AF463A

HP Parallel UPS

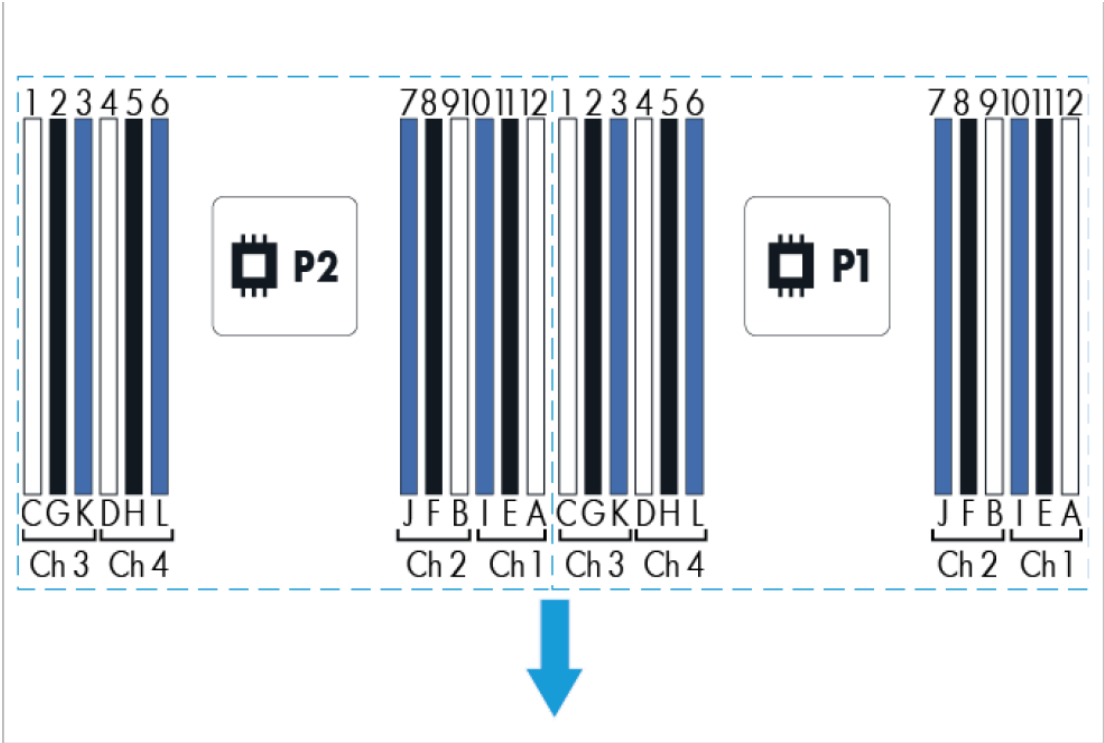|	
HP RP12000/3 6U International (INTL) Uninterruptible Power System Module	AF437A

NOTE: To learn more, please visit the HP Uninterruptible Power Systems (UPS) web page.

Memory

Memory Subsystem Architecture	Each Intel® Xeon® E5-2600v3 family processor socket contains four memory channels per installed processor with three DIMMs per channel for a total of twelve (12) DIMMs or a grand total of twenty-four (24) DIMMs for the system.

Memory Population guidelines

General Memory Population Rules and Guidelines:

White DIMM slots denote the first slot of a channel. For 1 DPC (DIMM per channel) populate white slots only.

A minimum of one DIMM is required per server.

Install DIMMs only if the corresponding processor is installed.

If only one processor is installed in a two processor system, only half of the DIMM slots are available.

To maximize performance, it is recommended to balance the total memory capacity between all installed processors and to load the channels similarly whenever possible.

When two processors are installed, balance the DIMMs across the two processors.

Populate DIMMs from heaviest load (quad-rank) to lightest load (single-rank) within a channel. Heaviest load (DIMM with most ranks) within a channel goes furthest from the processor.

RDIMMs operating at either 1.35V or 1.5V may be mixed in any order, but the system will power them at the higher voltage.

Do not mix RDIMMs or LRDIMMs.

LRDIMMs are supported up to 3 DIMMs per channel.

Memory

Using the HP RBSU, 1.35V DIMMs can be changed to operate at 1.5V.

DIMMs of different speeds may be mixed in any order; the system will select a common optimal speed.

The maximum memory speed is a function of the memory type, memory configuration, and processor model.

The maximum memory capacity is a function of the memory type and number of installed processors.

HP memory from previous generation systems is not compatible with the DL380z Gen9 Workstation. Certain HP SmartMemory features such as memory authentication and enhanced performance may not be supported.

To realize the performance memory capabilities listed in this document, HP SmartMemory is required. For additional information, please see the HP SmartMemory QuickSpecs at:
http://h18000.www1.hp.com/products/quickspecs/14225_div/14225_div.html (Worldwide).

For memory population rules and additional memory guidelines, please see the DL380z Gen9 user guide at http://www.hp.com/support.

There are four (4) Memory channels per processor; eight (8) channels per 2 processor system.

There are three (3) DIMM slots for each memory channel; twenty four (24) total slots for 2 processor system.

Memory channels1 and 3 consists of the three (3) DIMMs that are furthest from the processor.

Memory channel 2 and 4 consists of the three (3) DIMMs that are closest to the processor.

Memory

Memory Bandwidth and Capacity

Intel Gen9 Supported Memory Bandwidth for HP Gen9 Intel® Xeon®E5-2600v3 Series Processor Family

[DIMM Type]	Registered DIMMs (RDIMMs)		Load Reduced (LRDIMMs)
DIMM Rank	Single Rank	Dual Rank	Quad Rank
DIMM Capacity	8GB	16GB	32GB
DIMM Native Speed (MT/s)			
Voltage	Std Voltage 1.2V		
SLOTS THAT CAN BE POPULATED			
24 slot systems	24		
MAXIMUM CAPACITY (GB)			
	192	384	768
1 DIMM Per Channel	2133		
2 DIMM Per Channel	2133		
3 DIMM Per Channel	1600	1600	1600

DIMM slot and configuration diagram

DIMM slot and configuration diagrams
Basic memory slot & population diagram
• Population order; start with "A" first, "B" second, "C" third, etc.
• When one processor is installed, install DIMMs in sequential alphabetic order: A, B, C, D, E, F ...
• When two processors are installed, install DIMMs in sequential
• alphabetic order: CPU1-A, CPU2-A,CPU1-B,CPU2-B,CPU1-C, CP2-C

CPU 1			CPU 2	
Slot #	Population Order		Slot #	Population Order
1			1	

Memory Speed by Processor Model

Processor Models	Supported Memory Speeds
E5-2603v3, E5-2609v3,	1600MHz
E5-2620v3, E5-2623v3, E5-2630v3, E5-2630Lv3, E5-2640v3,	1866MHz
E5-2637v3, E5-2643v3, E5-2650v3, E5-2650Lv3, E5-2660v3, E5-2667v3, E5-2670v3, E5-2680v3, E5-2683v3, E5-2690v3, E5-2695v3, E5-2697v3, E5-2698v3, E5-2699v3, E5-2687Wv3,	2133MHz

Standard and Maximum Memory

Pre-Configured Models	Standard Memory	Maximum Memory Plus Optional Memory	Standard Memory Replaced with Optional Memory

Memory

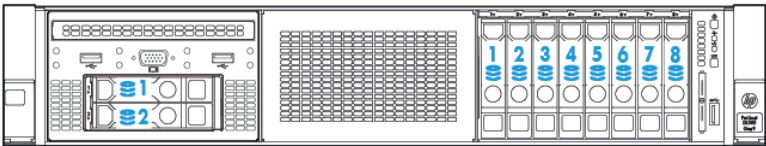| Capacity (Pre-configured Models)	E5-2609v3,	8GB (1x8GB)	376GB (23x16GB, 1x8GB)	768GB (24x32GB)
	E5-2620v3,	16GB (1x16GB)	384GB (23x16GB, 1x16GB)	768GB (24x32GB)
	E5-2650v3,	32GB (2x16GB)	384GB (22x16GB, 2x16GB)	768GB (24x32GB)

DDR4 memory options part number decoder

NOTE: Capacity references are rounded to the common gigabyte (GB) values.

- 2GB = 2,048MB
- 4GB = 4,096MB
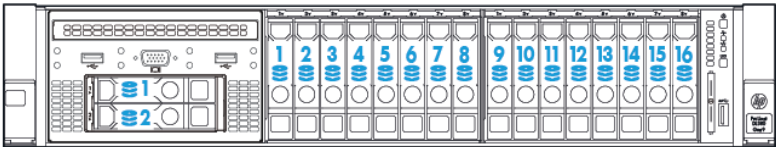- 8GB = 8,192MB
- 16GB = 16,384MB
- 32GB = 32,768MB

HP ggggg eRxff DDR4 wwwwm a bb-ccd Kit ____

Capacity
- 4GB
- 8GB
- 16GB
- 32GB
- 64GB

Rank
1R = single
2R = dual
4R = quad

Data Width
- x8 = 8
- x4 = 4

Memory Type

Module Bandwidth
17000MT/s (DDR4-2133)

CAS Latency
P = 15-15-15

DIMM Type
R = Registered
L = Load Reduced

Special Descriptor
(If Needed)
HS = Heat spreader

Storage

8 SFF (+2 SFF) hot-plug drive model with Universal Media Bay

1-8	8 x SFF SATA/SAS/SDD Hot Pluggable Hard drive bays
1-2	2 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

16 SFF (+2 SFF) hot-plug drive model with Universal Media Bay

1-16	16 x SFF SATA/SAS/SDD Hot Pluggable Hard drive bays
1-2	2 x SFF SATA/SAS/SSD Hot Pluggable Hard Drive Bays

QuickSpecs

Technical Specifications

System Unit	Dimensions	3.44 x 17.54 x 26.75 in (8.73 x 44.55 x 67.94 cm)

NOTE: Dimensions without Bezel

Weight (approximate)	Minimum: (Minimum - 8SFF chassis with 1xSFF HDD and 7 HDD blanks, 1x processor, 1x power supply (plus blank), 1x Flexible Smart Array, 1x Riser installed)	40.88 lb (18.54 kg)
	Maximum: (Maximum - 24 SFF hard drives (No rear drives), 2x processors, 2x power supplies, 1x Flexible Smart Array, 2x Risers installed)	49.71 lb (22.54 kg)

Input Requirements (per power supply)	Range Line Voltage	100 to 120 VAC
		200 to 240 VAC
BTU Rating	Maximum	For 800W Power Supply: 3207 BTU/hr (at 100 VAC), 3071 BTU/hr (at 200 VAC), 3112 BTU/hr (at 240 VAC) for China Only
		For 500W Power Supply: 1979 BTU/hr (at 100 VAC), 1911 BTU/hr (at 200 VAC), 1965 BTU/hr (at 240 VAC) for China Only
Power Supply Output (per power supply)	Rated Steady-State Power	For 1400W Power Supply: 1400W (at 100 VAC), 1400W (at 240 VAC), 1400W (at 240 VAC)
		For 800W Power Supply: 800W (at 100 VAC), 800W (at 240 VAC), 800W (at 240 VAC) input for China only
		For 500W Power Supply: 500W (at 100 VAC), 500W (at 240 VAC), 500W (at 240 VAC) input for China only
	Maximum Peak Power	For 1400W Power Supply: 1400W (at 100 to 127 VAC), 1400W (at 200 to 240 1VAC), 1400W (at 240 VAC) input for China only
		For 800W Power Supply: 800W (at 100 to 127 VAC), 800W (at 200 to 240 1VAC), 800W (at 240 VAC) input for China only
		For 500W Power Supply: 500W (at 100 to 127 VAC), 500W (at 200 to 240 VAC), 500W (at 240 VAC) input for China only
System Inlet Temperature	Standard Operating Support	10° to 35°C (50° to 95°F) at sea level with an altitude derating of 1.0°C per every 305 m (1.8°F per every 1000 ft) above sea level to a maximum of 3050 m (10,000 ft), no direct sustained sunlight. Maximum rate of change is 20°C/hr (36°F/hr). The upper limit and rate of change may be limited by the type and number of options installed. For approved hardware configurations, the supported system inlet range is extended to be: 5° to 40°C (41° to 104°F) at sea level with an altitude derating of 1.0°C per every 175 m (1.8°F per every 574 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL:www.hp.com/go/proliant/Ashrae For approved hardware configurations, the supported system inlet range is extended to be: 5° to 45°C (41° to 113°F) at sea level with an altitude derating of 1.0°C per every 125 m (1.8°F per every 410 ft) above 900 m (2953 ft) to a maximum of 3050 m (10,000 ft). The approved hardware configurations for this system are listed at the URL: www.hp.com/go/proliant/Ashrae
	Extended Ambient Operating Support	
	Non-operating	-30° to 60°C (-22° to 140°F). Maximum rate of change is 20°C/hr (36°F/hr).
Relative Humidity	Operating	Minimum to be the higher (more moisture) of -12°C (10.4°F) dew point or 8% relative humidity. Maximum to be the lower (less moisture) of 24°C (75.2°F) dew point or 90% relative humidity.

Technical Specifications

(non-condensing)	Non-operating	5 to 95% relative humidity (Rh), 38.7°C (101.7°F) maximum wet bulb temperature, non-condensing.
Altitude	Operating	3050 m (10,000 ft). This value may be limited by the type and number of options installed. Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
	Non-operating	9144 m (30,000 ft). Maximum allowable altitude change rate is 457 m/min (1500 ft/min).
Acoustic Noise		Listed are the declared A-Weighted sound power levels (LWAd) and declared average bystander position A-Weighted sound pressure levels (LpAm) when the product is operating in a 23°C ambient environment. Noise emissions were measured in accordance with ISO 7779 (ECMA 74) and declared in accordance with ISO 9296 (ECMA 109).

Idle

L WAd	4.1 B Entry
	4.2 B Base
	4.3 B Perf
L pAm	24 dBA Entry
	24 dBA Base
	25 dBA Perf

Operating

L WAd	4.6 B Entry
	4.8 B Base
	5.6 B Perf
L pAm	29 dBA Entry
	30 dBA Base
	39 dBA Perf

NOTE: The Listed sound levels apply to standard shipping configurations (Entry, Base, and Performance models) Additional options may result in increased sound levels. All models above include the standard fans.

Emissions Classification (EMC)	FCC Rating	Class A
	Normative Standards	CISPR 22; EN55022; EN55024; FCC CFR 47, Pt 15; ICES-003; CNS13438; GB9254; K22;K24; EN 61000-3-2; EN 61000-3-3; EN 60950-1; IEC 60950-1

NOTE: Product conformance to cited product specifications is based on sample (type) testing, evaluation, or assessment. This product or family of products is eligible to bear the appropriate compliance logos and statements.
NOTE: The Listed sound levels apply to standard shipping configurations. Additional options may result in increased sound levels.

HP Dynamic Smart Array B140i Controller	**Number of PCI links**	Four
	PCI link rate	4 Gb/s
	Storage protocol support	SATA
	SAS/SATA peak data transfer rate	6 Gb/s
	Number of SAS/SATA links	10 links
	SAS/SATA connectivity	2x4 connectors; 2x1 connectors
	Expander support	No

Technical Specifications

Drives supported (max)	Up to 10 Internal Drives
RAID support	0, 1, 10, 5 SATA
Software management	HP SSA, SMH, SIM
Warranty	Workstation warranty
HP Secure Encryption license	Not Supported
HP SmartCache License	Not Supported
HP Smart Storage Administrator	Supported

HP Ethernet 1Gb 4-port 331i Adapter	**Network Interface**	10Base-T/100Base-TX/1000Base-TX	
	Compatibility	IEEE 802.3 10Base-T IEEE 802.3ab 1000Base-T IEEE 802.3u 100Base-TX	
	Ports		
	Data Transfer Method	PCI Express, two lanes (x2)	
	Controller	BCM5719	
	Network Transfer Rate	10Base-T (Half-Duplex)	10 Mb/s per port, 40 Mb/s combined
		10Base-T (Full-Duplex)	20 Mb/s per port, 80 Mb/s combined
		100Base-TX (Half-Duplex)	100 Mb/s per port, 400 Mb/s combined
		100Base-TX (Full-Duplex)	200 Mb/s per port, 800 Mb/s combined
		1000Base-TX (Half and Full-Duplex)	1000Mb/s per port, 4000 Mb/s combined
		1000Base-TX (Full-Duplex)	2000Mb/s per port, 8000 Mb/s combined
	Connector	Four RJ-45	
	Cable Support	10 Base-T	Categories 3, 4 or 5 UTP; up to 328 ft (100 m)
		10/100/1000 Base-TX	Category 5 or higher UTP; up to 328 ft (100 m)

Environment-friendly Products and Approach	End-of-life Management and Recycling	Hewlett-Packard offers end-of-life HP product return, trade-in, and recycling programs in many geographic areas. For trade-in information, please go to: http://www.hp.com/go/green. To recycle your product, please go to: http://www.hp.com/go/green or contact your nearest HP sales office. Products returned to HP will be recycled, recovered or disposed of in a responsible manner. The EU WEEE directive (2002/95/EC) requires manufacturers to provide treatment information for each product type for use by treatment facilities. This information (product disassembly instructions) is posted on the Hewlett Packard web site at: http://www.hp.com/go/green. These instructions may be used by recyclers and other WEEE treatment facilities as well as HP OEM customers who integrate and re-sell HP equipment.

Summary of Changes

Date of change:	Version History:		Description of change:
February 1, 2015	From v1 to v2	Changed	DL380z Gen9 front photo callout, Storage Controllers (H240ar) HP Graphics Options moved to Step 2:, Media Bay Kits Notes
		Removed	Power Supply note, 24 SFF hot plug drive model from Storage section, HP Drives M.2